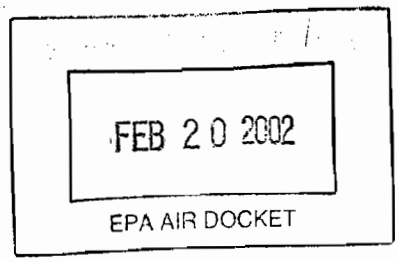
A-95-32
IV-D-12

ASPHALT INSTITUTE

Peter T. Grass
President

February 19, 2002



BY OVERNIGHT DELIVERY

Air and Radiation Docket and Information Center (6102)
Attention: Docket No. A-95-32
U.S. Environmental Protection Agency
Room M-1500, Waterside Mall
401 M Street, SW
Washington, DC 20460

Re: Proposed National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing; Proposed Rule
66 Fed. Reg. 58610 (Nov. 21, 2001), Air and Radiation Docket No. A-95-32

Dear Sir or Madam:

On behalf of the members of the Asphalt Institute (AI), I am pleased to submit the enclosed comments on the above-referenced proposed rule. AI appreciates the extra time it was given to develop comments, and we submit these comments before the February 21, 2002, deadline that AI was given. See the enclosed e-mail correspondence between Earl Arp of AI and Rick Colyer of U.S. EPA's Office of Air Quality Planning and Standards. Likewise, AI members also may submit individual comments by this deadline, in order to facilitate coordination and eliminate duplicative comments.

AI is a U.S. based association of international petroleum asphalt producers, manufacturers and affiliated businesses. With more that 90 members, AI represents about 95 percent of the annual domestic asphalt production. The wide variety of products manufactured from asphalt include residential and commercial shingles and other roofing materials.

We appreciate the opportunity to file these comments. If you have any questions, please feel free to call Earl Arp of our office at (859) 288-4976.

Sincerely,

Peter T. Grass
President

cc Rick Colyer, EPA/OAQPS (w/enclosures)

EXECUTIVE OFFICES & RESEARCH CENTER
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Arp, Earl
From: Colyer.Rick@epamail.epa.gov
Sent: Wednesday, January 23, 2002 10:21 AM
To: Arp, Earl
Subject: Re: FW: Comments re. 66FR58610(21NOV01)

Earl,

Sorry I didn't get back to you sooner. I'm still in transition from one office to another but today I think I've finally rejoined my phone and computer.

We will consider any comments that arrive in a reasonable time. 30 days after the close of the comment period falls into that category. Publishing a formal extension would take longer than getting the comments in. This "extension" will be afforded anyone who wants it.

Rick

"Arp, Earl" <EArp@AsphaltInst itute.org> To:Rick Colyer/RTP/USEPA/US@EPA cc: Subject:FW: Comments re. 66FR58610(21NOV01)
01/22/02 07:25 PM

Re-issued to different address; original transmission failed.

EWA

-----Original Message-----

From: **Arp, Earl**
Sent: Tuesday, January 22, 2002 7:01 PM
To: 'Colyer, Rick'
Cc: 'Novello, David P., Esq.'; 'Russell Snyder'
Subject: FW: Comments re. 66FR58610(21NOV01)

Mr. Colyer,

Earlier today, I was contacted by one of our members asking if the informal extension granted to the Asphalt Institute and the ARMA is applicable to member companies as well. This is an important question since the concerns of members can exert a significant influence on the positions taken by their trade group.

I first spoke with David Nolello, Esq. to get his opinion on this matter.

While he believed that member companies of the two trade associations would be afforded the same extension, together we felt this should be confirmed with your office. When you return to your office, you will find two voice mails from me on this subject.

We would appreciate a note from you confirming our belief that member companies of the Asphalt institute will be able to file comments on the subject proposed rule for 30 days beyond today (22JAN02) and have those comments fully considered by the Agency.

Thank you for your assistance in this matter.

Earl Arp

-----Original Message-----

From: **Arp, Earl**
Sent: Friday, January 18, 2002 11:33 AM
To: 'colyer.rick@epamail.epa.gov)'
Cc: Bruce, J.; McCarthy, Bernie
Subject: Comments re. 66FR58610(21NOV01)

Mr. Colyer,

I enjoyed speaking with you by phone earlier this week and appreciated your guidance on our preparation of comments.

As you know, the Asphalt Institute is planning to submit comments on the EPA Proposed Rule on NESHAP pertaining to Asphalt Processing and Asphalt Roofing Manufacturing.

At the time we spoke, I had requested a 30 day extension of the comment period, but estimated that we would in fact be able to complete our preparations within about two weeks. That is turning out not to be the case.

As noted in my voice mail to you earlier today, we are requesting the full 30 day extension (beyond 22JAN01) to complete and submit comments on the subject proposed rule. I trust this schedule will be satisfactory with your office. If not, please contact me @ 859-288-4976. We appreciate your understanding and assistance in this important matter.

Earl Arp
Director; Health, Safety & Environment

Comments of the Asphalt Institute

National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing; Proposed Rule

66 Fed. Reg. 58610 (November 21, 2001)
Air Docket No. A-95-32

A. Introduction

The Asphalt Institute (AI) appreciates the opportunity to file these comments on the proposed rules listed above. AI is a U.S. based association of international petroleum asphalt producers, manufacturers and affiliated businesses. With more that 90 members, AI represents about 95 percent of the annual domestic asphalt production. The wide variety of products manufactured from asphalt include residential and commercial shingles and other roofing materials.

Thus, EPA's proposed maximum achievable control technology (MACT) standards for asphalt processing and asphalt roofing manufacturing will directly affect our members. These standards, which will be codified at 40 CFR part 63, subpart LLLLL, will have a great effect on our members and customers. A number of AI members produce asphalt, and some members and many customers manufacture asphalt roofing products.

Moreover, AI brings a perspective to this rulemaking different than that likely to be brought by many other commenters. Our members both refine and process asphalt at established refineries and also stand-alone facilities. For this reason, we are particularly concerned that the asphalt processing provisions of the rules should be written clearly so that they do not mistakenly apply to other equipment, operations and processes at petroleum refineries. It is also important that the applicability provisions not confuse asphalt processors about the scope of the rules. In these comments we therefore suggest language changes that will make the rules less vague in this regard.

While AI focuses primarily on health effects and applicability issues in these comments, we also are interested in other aspects of the proposal that are being addressed by other trade associations. Rather than duplicate the comments of the Asphalt Roofing Manufacturers Association (ARMA) and the National Petrochemical & Refiners Association (NPRA), we hereby endorse and incorporate by reference certain of their comments on the proposal relating to the asphalt refining, processing, and distribution sectors of the industry.[1]

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[1] Specifically, we support and incorporate by reference the following parts of the ARMA comments: Section II, "Use of PM and THC as Surrogates for HAP"; Section III, (all -- except note that in section C of our comments we suggest additional definition changes related to applicability); Sections IV, V, VI, and VII (all). We also support and incorporate by reference the following parts of the NPRA comments: Section A, subsection 5 (suggesting a definition of "oxidized asphalt"; and Section F (seeking clarification

B. Incorrect Description of Health Effects

AI is very troubled by incorrect statements concerning health effects in the preamble to the proposal. See pp. 58612-13. The preamble describes health effects that, at the very least, would not be present when persons are exposed to hazardous air pollutants (HAP) at the concentrations emitted by asphalt processing facilities. AI recognizes that at least some of the acute health effects described by EPA are documented in the scientific literature when there is exposure to substances at high concentrations. In addition, we do not dispute that certain described chronic conditions may result from repeated exposure to high concentrations of certain substances. But particularly because the title of the preamble section is "What Are the Health Effects Associated With the Asphalt Processing and Asphalt Roofing Manufacturing Source Categories?" (p. 58612, col. 2), EPA must take into account the low emissions (and resulting minimal exposure) associated with nearly all HAPs emitted from asphalt processing operations. Even if the health effects described in the proposal could result from exposure to high concentrations of the pollutants, they would not result from the concentrations found at or near asphalt processing facilities. In short, none of the effects described in the proposal have been attributed in the scientific literature to asphalt at real world concentrations, conditions, and exposures.

For example, irritation of mucous membranes and coughing and bronchitis occur only when high concentrations of formaldehyde are inhaled. Exposures of even workers at an asphalt processing facility should be below the TLV® of 0.3 parts per million (ppm). For the public, exposure would be significantly less. Thus, the effects EPA described in the preamble would not be found in the vicinity of asphalt processing facilities.

In addition, acute exposures at very high levels of hexane are needed to produce the central nervous system and neuromuscular effects described in the preamble. Even if minute amounts of hexane were emitted from asphalt processing facilities, the concentrations would be so minimal that none of the health effects described in the preamble would occur.

We could make similar points about the other HAP discussed in the proposal. We think EPA should make clear in the final rule that HAP concentrations at asphalt processing facilities are not high enough to cause the health effects described in the proposal.

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that the use of a combustion-type control device at a petroleum refinery for the destruction of HAPs according to the proposed rule does not cause the vent stream to be considered a "fuel gas" under NSPS subpart J).

We also question the references in the preamble to formaldehyde emissions from asphalt processing operations. To our knowledge, the peer-reviewed literature on emissions from asphalt processing operations does not indicate the presence of formaldehyde emissions.

C. Definitions of Asphalt Processing Facility, Asphalt Storage Tank, and Asphalt Loading Rack

As noted above, AI members that process oxidized asphalt for roofing products engage in this processing activity at petroleum refineries and stand-alone facilities. As EPA staff know, asphalt processing is but one of many manufacturing activities that may take place at a refinery. These other processes are or will be covered by a variety of Clean Air Act (CAA) rules, including the previously-issued MACT standards for petroleum refineries. See 40 CFR part 63, subpart CC (§§ 63.640 to 63.654). For this reason, it is important for EPA to make clear that only tanks and other equipment directly associated with asphalt processing operations will be subject to the subpart LLLLL standards. Moreover, we do not believe it is clear whether EPA intended to have the standards apply to (1) all asphalt processing facilities that are major sources, or (2) only such major source asphalt processing facilities that process oxidized asphalt for roofing products (*i.e.*, not for other products). EPA should clarify this point in the final rule. We cover each of these two issues below, and suggest how EPA can change the proposal's definitions of "asphalt processing facility", "asphalt storage tank", and "asphalt loading rack" to correct these problems.

1. Ensuring That Only Asphalt Processing Operations Are Covered

Although we read the proposal's preamble to demonstrate EPA's intent to have the subpart LLLLL standards apply only to asphalt operations at petroleum refineries, we believe that regulators or citizen groups might think the rules apply more broadly. In addition, AI members could be confused given the current wording of EPA's proposed definitions.

We start with the definition of "asphalt processing facility". Proposed §63.8698 states in relevant part:

> *Asphalt processing facility* means any facility engaged in the preparation of asphalt at asphalt processing plants, petroleum refineries, and asphalt roofing plants, petroleum refineries, and asphalt roofing plants. Asphalt preparation, called "blowing," is the oxidation of asphalt flux by bubbling air through the heated asphalt. An asphalt processing facility includes the following processes: asphalt heating, blowing stills, asphalt flux storage tanks, oxidized asphalt storage tanks, and oxidized asphalt loading racks.

AI believes it important to clarify that a facility will not be subject to the standards unless it has asphalt blowing operations at the site. Otherwise, asphalt truly is

not being processed at the facility. Yet the wording of the definition as proposed (particularly the third sentence) could lead someone to believe that units such as asphalt storage tanks found at a refinery are covered even though there is no asphalt processing taking place there. That would be contrary to the rule's intent, and would cause much confusion for all concerned. In addition, the rule should make clear that only those operations directly associated with the blowing are covered by the rule. Otherwise, there could be confusion about whether "upstream" processes at the refinery are covered.

These two problems can be solved by inserting the words "that directly support such asphalt preparation and are located at a facility containing a blowing still" immediately after "processes" in the third sentence of the definition of "asphalt processing facility". We also believe the reference to "asphalt heating" should be deleted for the reasons described in section III of the ARMA comments.[2] Thus, the third sentence of the definition would read (with added language underscored): "An asphalt processing facility includes the following processes <u>that directly support such asphalt preparation and are located at a facility containing a blowing still</u>: blowing stills, asphalt flux storage tanks, oxidized asphalt storage tanks, and oxidized asphalt loading racks."

EPA should also insert a fourth sentence to the definition, which will clarify that a unit or process subject to the petroleum refinery MACT standards or any other MACT standards is not subject to the subpart LLLLL standards. The new fourth sentence should read: "Any unit or process subject to any other standard codified in any subpart of this part 63 is not subject to the standards of this subpart."

With the above corrections made, the definition of "asphalt storage tank" can be fixed easily. In the first sentence of the definition, "asphalt processing plants" should be changed to "asphalt processing facilities", to make the term consistent with EPA's term discussed directly above. In addition "petroleum refineries" should be deleted in this sentence – the parts of a petroleum refinery already subject to the rule are covered under the term "asphalt processing facility" (which expressly includes petroleum refineries). Thus, the corrected first sentence of the definition of "asphalt storage tank" should read: "*Asphalt storage tank* means any tank used to store asphalt, including asphalt flux, oxidized asphalt, and modified asphalt, at asphalt roofing manufacturing plants and asphalt processing facilities."

Similarly, the correction to the definition of "asphalt loading rack" is a fairly simple one. EPA should add the following underscored words to the proposed one-sentence definition: "*Asphalt loading rack* means the equipment <u>at an asphalt processing facility</u> used to transfer oxidized asphalt from a storage tank into a tank truck, rail car, or barge." Again, these changes – together with the changes to the definition of "asphalt processing facility" discussed above – will ensure that loading racks not associated with asphalt processing operations are not subject to the subpart LLLLL standards.

2. <u>Clarification on Whether Standards Apply Only to Asphalt for Roofing</u>

[2] See the subsection entitled "Definition of Facilities and Units Subject to the Standards."

From the proposal and EPA's supporting documents, it appears that EPA may have been focusing on asphalt used in roofing manufacturing operations. Yet the first sentence of the proposed definition of "Asphalt processing facility" would sweep in all asphalt processing operations, regardless of whether the oxidized asphalt is to be used for roofing manufacturing, paving, or any other applications. AI requests that EPA clearly indicate in the final rule whether all asphalt processing facilities may be subject to the MACT standards regardless of whether they produce oxidized asphalt for use in the roofing industry.

D. Excluding Tanks and Loading Racks With Low Vapor Pressure

AI believes it inappropriate to regulate storage tanks and loading racks with low volatile emissions. EPA certainly has discretion not to regulate units and processes with *de minimis* or low HAP emissions; the agency does this all the time in MACT rulemakings. Deciding not to establish standards for low-emitting units is particularly appropriate when, as is the case here, control costs are high. Yet, at asphalt processing facilities the proposed rule would regulate all asphalt storage tanks with a capacity greater than 1.93 megagrams (2.13 tons). See Table 1 to Subpart LLLLL, no. 1, and preamble at p. 58620, col. 1[3]. It would also regulate *all* loading racks, regardless of capacity. See Table 1 to Subpart LLLLL, no. 1.

While we support having a size capacity applicability threshold for storage tanks, we suggest adding a true vapor pressure threshold for determining applicability for both asphalt storage tanks and loading racks. This proposal is taken directly from EPA's NSPS for storage tanks. 40 CFR part 60, subpart Ka. In subpart Ka, petroleum liquids storage tanks are required to install a floating or fixed roof only if the stored liquid has a true vapor pressure equal to or greater than 10.3 kilopascals or "kPa" (1.5 psia). 40 CFR §§ 60.112(a)(1), 60.112a(a). This threshold would also be almost identical to the 10.4 kPa threshold that EPA established for existing storage vessels subject to the petroleum refinery MACT standards codified at 40 CFR part 63, subpart CC. See proposal at p. 58624, col. 2.We suggest using this same true vapor threshold cutoff in the subpart LLLLL MACT standards; the tanks would be subject to the standards only if the stored liquid has a true vapor pressure greater than or equal to 10.3 kPa.

If the vapor pressure does not reach this 10.3 kPa threshold value, there should be little concern about volatile HAP emissions. In fact, only five years ago an EPA Regional Office noted that the heavy nature of asphalt made emissions from storage tanks unlikely. In response to an inquiry from the Mississippi Department of Environmental Quality concerning the applicability of the subpart Kb NSPS to asphalt storage tanks, the Region explained that the tanks probably would not be subject to the rules because

[3] EPA appears to have chosen the 1.93 megagram threshold because no sources are using a thermal oxidizer to control emissions from storage tanks with a capacity lower than this figure. See p. 58620, col. 1. As explained in the ARMA comments, however, there is no legal or policy requirement to mandate MACT controls on particular emission units simply because some similar units of that size are regulated. Instead, EPA is to use its judgment in determining which units are worthwhile to control.

volatile emissions would be low. The applicability letter states: "Because asphalt is composed of heavy organic compounds, it may not emit VOCs to the atmosphere even if it is stored at an elevated temperature....Because the vapor pressure of asphalt is very low, an owner or operator of an asphalt storage tanks would probably be subject only to recordkeeping requirements...." Aug. 7, 1996 letter from Jewell A. Harper of EPA Region 4 to Dwight R. Wylie of the Mississippi Department of Environmental Quality, Control No. 9700029 in the Applicability Determination Index found on EPA's Web page. This letter is included as Attachment 1 to these comments. Moreover, the asphalt roofing MACT proposal itself points out that "[b]ased on limited vapor pressure data and average operating temperatures for asphalt tanks, it is unlikely that the vapor pressure of asphalt would trigger the petroleum refinery NESHAP control requirements" (p. 58624, col. 2).

The same basic principles regarding applicability thresholds that apply to storage tanks also apply to loading racks. If the vapor pressure on these loading racks at asphalt processing facilities is relatively low, the volatile emissions will also be low. It would not be cost-effective to route these low emissions to a thermal oxidizer, particularly because it may require extensive and costly ductwork to send the low-concentration gases to the control device. Furthermore, if a facility applied controls to loading racks with low vapor pressure, it might actually increase volatile emissions because the increased airflow associated with the controls could lead to greater volatilization. For these reasons, EPA should modify its subpart LLLLL MACT standards so that only loading racks with a true vapor pressure of 10.3 kPa (1.5 psia) are subject to control requirements in the MACT standards.

E. Conclusion

For the reasons discussed above, EPA should make a number of changes to its final subpart LLLLL MACT standards and the accompanying preamble. The health effects section in the preamble should be rewritten to discuss only properly-characterized potential health effects. EPA should make rule changes to ensure that the parts of a petroleum refinery not engaged in asphalt processing are not mistakenly considered to be covered by the standards, and to make certain that storage tanks and loading racks with a low true vapor pressure are not regulated. The final rule also should clarify whether asphalt processing for end uses other than roofing is covered by the standards. As we note in footnote 1, we also support parts of the comments on the subpart LLLLL MACT standards submitted by ARMA and NPRA.

AI stands ready to work with EPA in the development of the final rule, which will have a significant impact on our members. We would be happy to discuss with EPA any of the matters described in these comments.

Attachment 1

4ATP-AEB Aug 07, 1996

Mr. Dwight R. Wylie, P.E.
Chief
Air Division Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 10385 Jackson, Mississippi 39289-0385

SUBJ: New Source Performance Standard Applicability Determination

Dear Mr. Wylie:

This letter is in response to your February 9, 1996, request for a determination regarding the applicability of 40 C.F.R. Part 60, Subpart Kb [Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984]. In your letter you requested information regarding the applicability of these regulations to asphalt storage tanks and to tanks used for storing oil driven off and collected from asphalt blowing stills at asphalt processing plants.

Applicability of Subpart Kb to either of these types of tanks would depend upon whether the material stored can be classified as a volatile organic liquid (VOL). According to the definitions in 40 C.F.R. 60.111b(k), a VOL is any organic liquid which can emit volatile organic compounds (VOCs) into the atmosphere, and VOC is defined in 40 C.F.R. 60.2 as any organic compound which participates in atmospheric photochemical reactions. Therefore, if a storage tank owner or operator can demonstrate that material stored in a tank does not emit VOCs to the atmosphere at the temperature at which the material is stored, the tank would not be subject to Subpart Kb.

With respect to the two types of tanks for which you requested a determination, it is more likely that an asphalt storage tank would be exempt from Subpart Kb than would one storing oil from an asphalt blowing still. Because asphalt is composed of heavy organic compounds, it may not emit VOCs to the atmosphere even if it is stored at an elevated temperature. According to your letter, oil collected from asphalt blowing stills is comparable to No. 6 fuel oil, and material of this type is light enough that it probably does emit VOCs to the atmosphere .

In order to qualify for an exemption from Subpart Kb, a source owner or operator must provide information on the temperature at which the material in the tank is stored and demonstrate that, at this temperature, no VOCs are emitted. Because the vapor pressure of asphalt is very low, an owner or operator of an asphalt storage tank would probably be subject only to recordkeeping requirements in 40 C.F.R. 60.116b if the tank does not qualify for an exemption from Subpart Kb. It would also be necessary to reevaluate the applicability of Subpart Kb if the owner or operator of a storage tank constructed, reconstructed, or modified after the applicability date for Subpart Kb (July 23, 1984)

obtains an exemption from Subpart Kb because the material stored in the tank does emit VOCs and later uses the tank for storing a more volatile material.

If you have any questions about the determination provided in this letter, please contact Mr. David McNeal of my staff at (404) 347-3555, extension 4158.

Sincerely yours,

Jewell A. Harper
Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division